

REMARKS/ARGUMENTS

This is in full and timely response to the final Office Action mailed June 3, 2003, submitted concurrently with a Petition to Extend Time to within the first extended month, and submitted concurrently with a Request for Continued Examination (RCE).

Claim 1 was amended to recite that an orifice is provided on the conduit upstream of the valve for regulating pressure in the conduit upstream of the valve. Support for this amendment can be variously found throughout the specification, for example, Fig. 1 and the corresponding description. No new matter was added. Claims 1 and 3-6 are pending in this application, with claim 1 being independent. By this Amendment, Applicants believe that at least claims 1 and 3-6 are in condition for allowance. Reexamination and reconsideration in light of the above amendments and the following remarks is respectfully requested.

Applicants' Representative thanks the examiner for the courtesies extended during the September 3, 2003 personal Interview.

Personal Interview

A personal Interview was conducted on September 3, 2003. Applicants concur with the Interview Summary (Paper No. 9), which reports that the Interview included a discussion regarding the possible inclusion of an additional limitation to claim 1, specifically, that the claiming of an orifice would appear to overcome the applied art rejections.

Rejections under 35 U.S.C. §103

Claims 1 and 3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,603,315 to Sasso, Jr. in view of U.S. Patent 4,520,812 to Freitag et al. Applicants respectfully traverse this rejection.

Claim 1 is directed to an apparatus for supplying an oxygen therapeutic gas and includes a cylinder, a nasal cannula, a conduit, a pressure sensor, a valve and a controller. Claim 1 recites an apparatus for supplying as oxygen therapeutic gas, comprising: a cylinder for containing a pressurized oxygen therapeutic gas; a nasal cannula, adapted to be introduced into a nasal passage of a patient; a conduit extending between the cylinder and the nasal cannula for directing

the oxygen therapeutic gas to the nasal cannula from the cylinder; a valve, provided on the conduit, for allowing and blocking the fluid communication between the cylinder and the nasal cannula; a pressure sensor, provided on the conduit downstream of the valve, for detecting the pressure in the conduit; an orifice, provided on the conduit upstream of the valve, for regulating pressure in the conduit upstream of the valve; and a controller for controlling the operation of the valve in synchronization with respiration of a patient based on changes in pressure detected by the pressure sensor, the controller comparing respiratory frequency with a threshold to increase volume of the oxygen therapeutic gas for each respiration in step when the respiratory frequency is larger than the threshold.

As discussed during the Personal Interview, inclusion of an additional limitation to claim 1, specifically, that the claiming of an orifice would appear to overcome the applied art rejections.

Sasso '315 discloses a multiple mode oxygen delivery system for pulse dosing and conservation of oxygen in a delivery system. The main object of Sasso '315 is to provide an oxygen delivery system improved to continually adjust the oxygen pressure to provide an accurate output despite inaccuracies induced by conventional regulators and pressure changes due to oxygen tank consumption. For this purpose, the pressure sensor 6 is coupled to the line 12 between the pressure regulator 4 and the restrictor 16, that is upstream of the valve 18, so as to detect the output pressure of the gas source 2.

Sasso '315 does not disclose, teach or suggest an orifice, provided on the conduit upstream of the valve, for regulating pressure in the conduit upstream of the valve.

Freitag et al. '812 discloses an orifice downstream of any valves. See, for example, Fig. 1. Freitag et al. '812 do not disclose, teach or suggest an orifice, provided on the conduit upstream of the valve, for regulating pressure in the conduit upstream of the valve.

Accordingly, all of the claimed elements must be disclosed, taught or suggested in the combined references in a §103 rejection. Discussing the references individually to show the lack of recited elements is proper and necessary, because if all of the claimed elements are not disclosed, taught or suggested, then de facto the combination of the references do not rise to a prima facie level of obviousness.

Accordingly, neither Sasso '315 nor Freitag et al. '812 disclose, teach or suggest the recited claim elements, either alone or in combination. Accordingly, a prima facie case of obviousness has not been established. Withdrawal of this rejection is respectfully requested.

Dependent claims 3, 5 and 6 being dependent upon allowable claim 1, are also allowable for the reasons above. Moreover, these claims are further distinguished by the additional features recited therein, particularly within the claim combination.

Accordingly, withdrawal of the §103 rejections is respectfully requested.

Claim 4 is rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 5,603,315 to Sasso, Jr. in view of U.S. Patent No. 5,865,174 to Kloeppel. Applicants respectfully traverse this rejection.

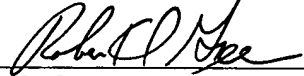
Dependent claim 4 depending from claim 1 is also allowable for the reasons above. Moreover, this claim is further distinguished by the materials recited therein, particularly within the claimed combination. Withdrawal of the §103(a) rejection is therefore respectfully solicited.

Conclusion

For the foregoing reasons, claims 1 and 3-6 are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of these amendments and remarks is courteously solicited. If the examiner has any comments or suggestions that would place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number below.

Dated: September 26, 2003

Respectfully submitted,

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